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AUTHOR Weiner, Bernard; And Others
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ABSTRACT

Social cognition is defined as a new field in psychology which emphasizes cognitive processes. It is concerned with how people interpret and construct their social environment. Selected aspects of this field are reviewed. These include perceptual salience, causal attributions, and indirect ability communications. Their pertinence to the educational process is examined. Mainstreaming gives rise to a set of often unnoticed consequences that are anticipated and partially explained by cognitive social psychologists. The perceived causes of achievement outcomes, the antecedents that influence causal judgments, and some of the consequences of attributional beliefs are examined. Teachers unintentionally use indirect communications which carry low ability messages to students. The following apparently positive actions could have negative consequences for self-esteem: praise for success at an easy task, excessive help especially when it is not sought, and expressions of pity for failure. Psychologists interested in self-perception believe that a specified praise/blame pattern, helping, and sympathy may lower self-perception of ability. Positive actions which may negatively influence self-perception of ability are frequently expressed toward the handicapped, ethnic minorities, and females. The report attempts to illustrate the connection between person perception and education. (DWH)

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Social Cognition in the Classroom

Bernard Weiner

University of California, Los Angeles

Wulf-Uwe Meyer

University of Bielefeld, West Germany

Shelley E. Taylor

University of California, Los Angeles

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Social Cognition in the Classroom

ABSTRACT

Social cognition is a new and growing branch of social psychology. We review selected aspects of this field, concentrating upon perceptual salience, causal attributions, and indirect ability communications, indicating their pertinence to the educational process. The topics discussed range widely and include mainstreaming, the perceived causes of success and failure, self-concept and self-esteem, expectancy of success, achievement-related emotions, perceived control and helplessness, determinants of evaluation, praise, blame, helping, and other-directed pity and anger.

The ongoing interchange between psychologists and educators has produced much of value for the understanding of the learning process. The present effort has been undertaken to add to this interchange by outlining a relatively new field in psychology, namely, social cognition, and presenting some of the findings from this discipline that are pertinent to the classroom. Because this awakening field is so diverse, the entirety of theory and data that are relevant to the educational process cannot be covered. Instead, we have chosen to focus on self- and other-perception in the classroom, selectively drawing on the pertinent literatures that address these areas. First, however, a brief introduction to social cognition is in order.

What is Social Cognition

Social cognition differs from some other fields within psychology because of its emphasis on cognitive processes. While other areas might specify reinforcement principles or motivational processes as determinants of behavior, practitioners of social cognition argue that much of our behavior can be understood by comprehension of how the world is cognitively represented: our impressions, inferences, and causal attributions. In some cases, this emphasis may lead to predictions opposite to those generated by other approaches. For example, while an operant conditioning advocates maintain that praise is an effective educational tool, social cognition theorists pinpoint circumstances in which praise actually can undermine learning. These will be discussed in

a later section of this paper. For the most part, though, social cognition simply stresses different principles of behavior than do other subdivisions within psychology. This emphasis leads, among other things, to a fuller consideration of how teacher and pupil both form and alter constructions of the to-be-learned material, each other, and the educational context in which learning occurs. Does the student see the educational environment as one in which she can perform freely or does she feel constricted and restrained by prior conceptions others have of her? Does she believe that the teacher likes her and believes that she is smart, or does she think that the teacher considers her stupid and unmotivated? Does the teacher have fixed expectations about the child or about how successfully the child will learn a given type of material? These are the kinds of questions that characterize a social cognitive approach to education.

As already intimated, social cognition is concerned with how people interpret and construct their social environment. Rather than passively observing what goes on around us, we extract meaning from behavior, make attributions for events that have occured, infer characteristics of people associated with those events and, more generally, construct social reality. In some cases, the focus is on one's own behavior, trying to understand the motives for our own actions. For example, a teacher may be concerned with why he became so angry when a student merely was whispering to another student in class. In other cases, the focus is on the behavior of others. A teacher may wonder, for example, why a particular student failed on a task and attempt to infer if the child had a temporary lapse

in attention or whether the child is low in ability.

Social cognition is concerned with all aspects of these inference processes. Some work has examined the characteristics of the social environment that initially guide attention and determine the cues that are used to form impressions. We know, for example, that more attention is paid to individuals who are unusual in appearance (as the physically handicapped) and that more extreme impressions are formed about these individuals (Langer, Taylor, Fiske, & Chanowitz, 1976). A related line of work concerns what cues are used to reach inferences and how contradictory cues are combined. For example, it appears that negative information about another person influences one's impressions more than positive information about that same individual (Fiske, 1980). Other research has focused on the perceiver's preconceptions, such as stereotypes and other cognitive schemes that guide the collection and the retention of information. For example, people remember information that is consistent with their stereotypes (e.g., the stewardess was pretty) better than information that is not stereotype consistent (e.g., the stewardess wore glasses) (Hamilton & Rose, 1980). And yet another line of investigation explores the content of inferences, such as ascriptions of causality, self-perception, or the perception of others, and examines how these thoughts influence action (see Weiner, 1980a).

Fundamental to the field of social cognition is the assumption that individuals search for stabilities in the environment (Heider, 1958). We are best able to predict and perhaps control what goes on around us if we can identify lawful relationships and invariants that explain our

own and other people's behavior across a variety of situations. Consider, for example, the havoc that would result in teaching if the classroom were changed every day, children were added or deleted from the daily roster, and teaching materials were randomly introduced into the curriculum. To the stabilities that are provided by situational constancies is added the further constancy of our own psychological structures. Over time, through observations and the processing of relevant information, we note regularities that provide a basis for our stable perceptions and inferences. This includes inferences that we have made about ourselves (such as our teaching ability) and those we have made about others.

The Problem of Bias

Humans are adept at processing a wealth of information to reach conclusions about themselves and their social environment. Cognitive social psychologists have addressed themselves to the motivational structures and the cognitive capacities that are involved in making sense of the social world (e.g., Kelley, 1967). But, at the same time, it has been contended that the cognitive demands made upon us often are excessive and that perceptions of ourselves, as well as of others, are not always veridical or in agreement with social consensus (--- Ross, 1977). Furthermore, there are motivational or egocentric biases that may interfere with accurate perceptions of oneself and others (Weary, 1978). Researchers have been especially drawn to the study of such inferential errors.

In many cases, errors are caused by the failure to observe accurately or to be aware of all the factors that produce a behavior (Taylor & Fiske, 1978).

Errors in social judgment also may be caused by the tendency to make inferences about others relatively quickly, without considering sufficient information (Tversky & Kahneman, 1974). Often insufficient deliberation is necessary because we must interact with a person immediately or make decisions about him or her before all the relevant data are known. For example, a teacher may need to designate children for special tutoring early in the school year, before there has been sufficient opportunity to observe them carefully in class. Hence, a child may be designated for long-term special help when, in fact, the child's learning difficulties are temporary and stem from an impending marital break-up. In other circumstances, errors in judgment are not tied to a particular child's behavior, but rather are more general biases that influence the perception of others, such as the tendency to perceive others as less (or more) capable or knowledgeable than they are (as illustrated when car mechanics speak to naive automobile owners or when computer specialists address fledgling users). But even when one has a great deal of information, ideal judgments are not always made. To wade through the mass of available information quickly, shortcuts and heuristics are used that are likely to be biased in particular ways (Tversky & Kahneman, 1974).

A well-researched bias often is exhibited when we interpret the actions of others, for their behavior usually is attributed to enduring personality dispositions, rather than to the impact of the immediate situation (Jones & Nisbett, 1971; Ross, 1977). A systematic influence on teachers'

behaviors therefore is likely to be the tendency to locate responsibility for a child's actions within the child, and further, to assume that this cause is relatively stable. Because we seek to identify regularities, many temporary but powerful situational influences that affect an individual's behavior may be overlooked.

Thus far only the inferences that teachers make about childrens' behaviors have been considered. But just as the teacher construes meaning from the child's behavior, so the child construes meaning from the behavior of the teacher. Although both the teacher and the child can be extracting meaning from the objectively identical situation, the behavior may be interpreted very differently by each. For example, a teacher may appear to ignore one child, knowing that special help is not needed. On the basis of the lack of attention, the child may infer that the teacher does not like him. Or, a teacher may give a child extra help, knowing that this child performs well with attention. But the pupil may then infer that the teacher thinks she is not very bright and cannot perform the task alone. Because behavior often is ambiguous and subject to multiple interpretations, miscommunications are likely to be common.

Social cognition, then, is the active construction of social reality. It concerns inferences that we make about ourselves and others, how those inferences are formed, and how they are perpetuated. It is a process engaged in by children and adults, and it is marked by accuracy as well as by some flagrant biases and errors. The errors in judgments have generated special attention.

Salience and Mainstreaming

Let us now turn from these very abstract and general descriptions to a very specific issue — mainstreaming, and examine applications from principles of social cognition that add new dimensions to this problem. Recent federal legislation has mandated that children who were historically educated in special classes, children such as the handicapped and the educable mentally retarded, now be "mainstreamed" into the standard educational experience. While there are economic advantages and educational justifications for this law, some basic findings in the area of social cognition suggest that mainstreaming will create special problems for both the newly-integrated children and their teachers.

A widely-researched phenomenon that is directly relevant to the issue of mainstreaming concerns how people form impressions of distinctive others (McArthur, 1981; Taylor & Fiske, 1978). Impression formation is greatly influenced by what has been termed "salience." It has been found that when one individual in a group appears different from the others around him or her, that individual attracts disproportionate attention; he or she is evaluated in extreme terms; his or her behavior stands out and is recalled more easily; and he or she is subject to stereotyping (Taylor & Fiske, 1975, 1978).

An example of these findings that bears important similarity to the mainstreaming situation concerns studies of solo or "token" status. In these investigations (e.g., Taylor, Fiske, Close, Anderson, & Ruderman, 1980; Taylor, Fiske, Etcoff, & Ruderman, 1978), subjects observe an

interacting small group in which one or more individuals in the group are different from the other group members, e.g., a minority black in a predominantly white group, a minority female in a primarily male work group, or a minority male in a predominantly female work group. The responses of the observer-subjects are then compared with responses of subjects who observe the same activities performed in a group characterized by equal numbers of blacks and whites or males and females. There are striking perceptual differences as a result of these disparate group compositions. The minority members are attended to more than the other group members and their behaviors are better recalled. They are thought to have talked more and to have had more impact on the group activities than is actually the case. When their behavior is positive (e.g., successful, friendly, outgoing), evaluation is very favorable. But when their behavior is negative (e.g., failure, complaining), evaluation is extremely negative. Solo status, then, is a double-edged sword: with positive outcomes, there are unexpectedly favorable evaluations; with negative outcomes, one is rejected more forcefully than if one had not been in the spotlight.

Perhaps the most striking result of these studies is that "solo" individuals are disproportionately seen as playing out special roles, such as group comedian or deviant, in the group. It is as if perceivers assume that a distinctive looking person must be distinctive in behavior as well. Virtually any physical characteristic that distinguishes an individual from others, such as gender (Taylor et al., 1978) or a physical handicap (Langer,

Taylor, Fiske, & Chanowitz, 1976) can set these dynamics into operation.

Now let us examine how these principles might affect the mainstreamed child. To our knowledge, the dynamics of salience have not yet been examined with children. However, the processes underlying salience effects are present in children and therefore the existence of salience effects seems quite likely in this population.

Newly-mainstreamed children are in a disadvantaged position from the outset. The classroom situation is new; they are now with children to whom they may previously have felt inferior; prior educational experiences may not have been at as high a level as for other children and/or the mainstreamed children may not be as bright as the other children in the class. In sort, for a wealth of reasons the situation is ripe for initial failure.

What, then, are the additional consequences of being salient in the mainstreaming situation. On the basis of the previously described studies of salience, one can expect that the mainstreamed child's behavior will be noticed more. This may be exacerbated by the fact that these children may receive disproportionate attention by virtue of appearance, as is the case with the handicapped child, or by virtue of their behavior. Given a constellation of failure and salience, what is recalled about the child's behavior is likely to be biased in an unfavorable way. This is additionally likely because people better remember information that fits their stereotypic preconceptions (Snyder & Swann, 1978). Peers are subject to the same misperceptions that may plague the teacher. A child who appears different from others will attract peer group attention. Peers may perceive

the behavior of the mainstreamed child as "different" whether or not this is true, or perceive the behavior as more unusual than it really is.

The discussion of salience has been confined to the issue of mainstreaming, but the implications are more far-reaching. In any new situation of integration, which in essence describes the mainstreaming movement, the dynamics of salience can be set into operation. Language-minority children in English-speaking classrooms, racial-minority children in otherwise homogeneous classrooms, and minority female children in classes that are heavily male (as might be the case in optional math instruction programs) may suffer from the same problems of disproportionate attention, extreme evaluation, and biased recall that are likely to be experienced by the handicapped or the educable mentally retarded in the standard classroom. In addition, children's self-concepts are in good part determined by the characteristics which they perceive as not shared by others (McGuire & Padawer-Singer, 1973). Hence, self-perception is also directly affected when differences between children are made salient.

The preceeding argument is not intended as a psychological indictment of mainstreaming in particular or of integration more generally. Rather, what we want to point out is that mainstreaming or integration give rise to a set of often unnoticed consequences that are anticipated and to some extent explained by cognitive social psychologists.

Causal Inference

Mainstreaming in a method rather than a problem — a method of dealing with a particular set of children with a particular set of difficulties. Of course, many other problems exist in the classroom that have not (and perhaps cannot) be addressed at the policy level. Among these classroom obstacles to learning are low academic self-esteem and a host of correlates such as low expectancy of success and lack of task persistence. . . While these descriptors are linked to specific students, they also are associated with groups or classes of pupils. For example, females have lower expectancy for success in the classroom than do males, in spite of having higher grade point averages (Crandall, 1969). In addition, they are underrepresented in higher math classes (see Pedro et al., 1981). These barriers to learning have been examined by cognitive social psychologists primarily identified with the study of causal attribution.

Causal attributions concern <u>why</u> an event has occurred. For example, one might ask: "Why have I failed the math test?" or "Why is my son doing so poorly in school?" or "Why won't Jane go to the dance with me?" Within the broad area of causal inference, the theory and research most relevant to the field of education concerns the perceived causes of success and failure, or what are known as achievement-related attributions. In this section of the paper we examine the perceived causes of achievement outcomes, the antecedents that influence causal judgments, and some of the consequences of attributional beliefs.

The Perceived Causes of Success and Failure

In achievement-related contexts such as the classroom, athletic fields, and occupational settings, success and failure typically are ascribed to ability, some aspect of motivation, help or hindrance from others, physiological factors such as mood, maturity, and health, the difficulty or ease of the task, and luck. That is, in attempting to explain a prior success or failure either pertaining to oneself or another, individuals might estimate their own or the performer's level of ability, the amount of effort expenditure, the magnitude and direction of luck, and so forth. This causal search is not equally evident in all situations. Unexpected failure especially gives rise to a desire for understanding, while explanation is rarely sought given an expected success (Wong & Weiner, 1981). Because effective coping depends on locating the cause(s) of failure, attributions serve an adaptive purpose, helping individuals to function effectively in an ambiguous world.

Causal Dimensions

Inasmuch as the potential list of causes is considerable within any domain, and because specific causes differ between, say, athletic and classroom success, it is essential to create a classification scheme or a taxonomy of causes. In so doing, the underlying properties of causes are ascertained and their similarities and differences can be determined.

The causes of success and failure have been subsumed within a three-dimensional taxonomy (see Weiner, 1979, 1980a). One dimension is the internal-external description of causes most associated with the well-known field of locus of control (Rotter, 1966). This dimension has been captured

with various other labels, such as person-environment, disposition-situation, origin-pawn, or intrinsic-extrinsic motivation. Ability, effort, and mood, for example, are properties internal to the person, whereas characteristics of the task, teacher bias, and luck are external or environmental causes. A second dimension of causality characterizes causes on a stable (invariant) versus unstable (changing) continuum. Math or musical aptitude, for example, are perceived as relatively fixed, while causes such as luck, effort, and mood are more unstable — luck implies random variability, effort may be augmented or decreased from one episode to the next, and mood typically is conceived as a temporary state. Finally, a third dimension of causality has been called controllability. Some causes, particularly effort, are perceived as subject to personal influence; one is held responsible for their presence or absence. Thus, if failure is perceived as due to a lack of effort, then "it could have been otherwise." Personality characteristics such as patience or long-term mood also are often perceived by others as controllable. On the other hand, causes such as aptitude or luck are not seen as subject to volitional influence.

Causes therefore are classifiable within one of eight groupings (2 levels of locus X 2 levels of stability X 2 levels of controllability). Aptitude, for example, is considered an internal, stable, and uncontrollable cause. That is, failure at math because of the perception of low mathematical aptitude would be considered a characteristic of the failing individual that will remain constant in time and over which that student has little control. Effort expenditure would be classified as internal, unstable, and controllable;

mild illness is internal, unstable, and uncontrollable; luck is considered external, unstable; and uncontrollable; and so forth. Of course, the placement of a cause within a dimension is not necessarily invariant over time or between people. For example, rather than being an external cause, luck can be considered an attribute of a person ("He is lucky"). Given the focus of this paper, what is important is that locus, for example, is perceived as a basic property of causes.

Note that locus and control are classified as different dimensions in this scheme. This contrasts with the concept of locus of control, which is currently quite popular among educators. An attribution for failure to lack of math aptitude is internal to the pupil, but aptitude is not controllable. Hence, the concept of locus of control confounds two separate dimensions of perceived causality. Psychologists in social cognition have pointed out this confounding by examining the wide array of causal factors that might influence the perceived determinants of success and failure.

Given a list of causes and a preliminary taxonomy, the research in this area proceeded in two directions: backwards to the information, processes, and structures that influence causal decisions, and forward to the consequences of causal judgments on a variety of psychological processes. (see Kelley & Michela, 1980).

Antecedent Conditions

How do students "know" whether they failed because of a lack of ability, because they did not study hard enough, or because they used the wrong strategy when they did study? In a similar manner, what leads a teacher to conclude that the poor performance of the students was due to their laziness, as opposed to poor lectures about the course material? A number of antecedent cues and structures have been identified that influence causal inferences.

A Statistical Model

The acknowledged founder of attribution theory, Fritz Heider (1958), claimed that people operate like quasi-scientists when drawing causal inferences. According to Heider, the main determinant of perceived causality is covariation: if an effect frequently follows a particular condition, then that condition is held responsible for the effect.

Kelley (1967) systematized the manner in which individuals might use covariation principles to determine causality. Assume, for example, that a pupil succeeds at a math test. One question the teacher might raise is whether the success was due to high ability or to the ease of the task. Most simply stated, Kelley reasons that the responsible factor is determined by examining the covariation of the effect with the performance of this student on prior tests and the performance of others on this test. If this person always succeeds on math tests, while others have failed this test, then it is likely that the current success will be ascribed to high ability. On the other hand, if the pupil consistently failed tests prior to the current success, while all others also succeeded on this test, then the present success will be attributed to the ease of the task.

A more general implication of these principles is that, to learn about oneself or others, the expressed behavior must not be in accord with social norms or role demands (see Jones & Davis, 1965). For example, we cannot logically conclude that an individual is quiet from an observation that the person is quiet when in the library. On the other hand, an inference that a person is noisy may be reached if the person repeatedly talks in the library.

Biases. The statistical model reviewed above was guided by the assumption that individuals are rational, gathering information in an unbiased manner and then synthesizing this evidence to reach a sound conclusion. However, as might be anticipated from the discussion of mainstreaming, there are many sources of bias in the attribution process. One source of bias already alluded to is the tendency to attribute the behavior of others to personality characteristics rather than to situational factors. Another cause of bias is that attributions may serve a defensive or ego-enhancing function (Weary, 1978). There does appear to be a tendency to take more credit for success than personal blame for failure. This is known as the "hedonic bias." Under some circumstances, for example, teachers may take more credit for the increasing performance of students than blame for decrements in student performance over time (Beckman, 1970). Finally, there is suggestive evidence that there are individual differences in causal preferences that influence attributional decision making. For example, some data indicate that individuals high in achievement needs ascribe success to effort and failure to a lack of effort (Kukla, 1972). The perception of an effort-outcome covariation has functional significance in that it would tend to increase work-related efforts. Conversely, individuals low in achievement needs may tend to ascribe their failures to a lack of ability. The adverse behavioral consequences of attributing failure to low ability are discussed in the next section of this paper.

Perhaps the most active literature related to attributional biasing in the achievement domain concerns gender differences. Evidence (yet equivocal) has been gathered that females, to a greater extent than males, attribute

success to external factors such as luck and task ease while ascribing failure to low ability (e.g., Deaux & Farris, 1977). This could be one determinant of their relatively low expectancy of academic success.

This point will be elaborated in the subsequent section of this paper.

Self-concept maintenance. Both the statistical models and the possibility of causal biasing point out why it may prove difficult to change the low self-concept of academic ability that plagues some students. If the student has a history of past failure, then there will be a tendency to attribute any current failure to oneself (low ability) and success to temporary or external factors (good luck, task ease). These "logical" inferences, in addition to any extant bias to assume blame for failure, will maintain a low-ability self-concept (Valle & Frieze, 1976).

Causal Consequences

The question we turn to next is: "What are the psychological consequences of causal ascriptions?" That is, what difference might it make if a pupil ascribes his or her failure to lack of ability as opposed to lack of effort, or if a teacher attributes the success of a pupil to good luck rather than to high ability? And how might these causal inferences relate to the syndrome of low self-esteem, low success expectancy, lack of task persistence, and underachievement that was introduced at the beginning of this section of the paper? To answer these questions, we more fully examine the three causal dimensions of stability, locus, and controllability, for each dimension is linked with specific psychological consequences that are pertinent to the failure syndrome just described.

Causal Stability and Expectancy of Success

Consider the following scenario: A student with a mediocre grade point average appeals to be admitted into graduate school. She says that her grades were not high because she had financial problems, requiring her to work, and that she also had to spend time caring for her injured mother. Now, however, she has inherited a small sum of money and her mother is recovered. She therefore contends that she will do well in graduate school. The admissions officer is confronted with the same evidence of a long-term pattern of less than outstanding performance. But the grades are ascribed to some personality characteristic, such as moderate ability or lack of a "work ethic." (Note that this pattern illustrates the tendency of actors to ascribe causality to situational factors, while observers attribute outcomes to more stable personality characteristics). It is therefore decided not to admit the student into graduate school.

The general rule illustrated in this scenario is as follows: If one anticipates that conditions producing an outcome will remain unchanged (attribution to a stable factor), then the prior outcome will be foreseen again. But if conditions are perceived as changeable (attribution to an unstable cause), then there is some doubt whether a prior success or failure will be repeated. Thus, for example, failure ascribed to low ability or to the difficulty of a task (stable factors) decreases the expectancy of future goal attainment more than does failure that is ascribed to bad luck or to temporary illness (unstable factors). In a similar manner, success ascribed to good luck results in lesser increments in the subjective expectancy

of future success at that task than does success ascribed to high ability or to the ease of the task (Weiner, Nierenberg, & Goldstein, 1976).

It has already been indicated that some individuals or groups bias ability ascriptions. For example, females are somewhat more likely than males to ascribe math failure to low ability, and are less likely to ascribe success at math to high ability (see Pedro et al., 1981). Hence, females should have a lower expectancy of success at math than males, inasmuch as ability is perceived as relatively constant. This, in turn, is likely to inhibit their enrollment in math courses and perhaps impede their performance (see Parsons, 1981).

Causal Locus and Affective Reactions

Like causal stability, locus of causality has important psychological consequences for achievement strivings. The locus of causality is a key determinant of affective reactions to achievement outcomes. Pride and positive self-esteem are experienced as a consequence of attributing a positive outcome to the self, while negative self-esteem is experienced when a negative outcome is ascribed to the self. This appears to be the case whether the perceived cause is controllable (e.g., effort) or uncontrollable (e.g., aptitude). To paraphrase Kant, everyone can enjoy a good meal, but only the cook can experience pride; pride and personal esteem are self-

reflective emotions. One therefore does not experience pride in success when receiving an "A" from a teacher who gives only that grade, for the cause of success is external to the pupil. On the other hand, an "A" from a teacher who gives few high grades should generate much positive self-related affect (see Weiner, Russell, & Lerman, 1978, 1979). In this instance, the success is likely to be perceived as due to some personal characteristic(s), such as high ability and/or unusual effort expenditure. If, as Atkinson (1964) has contended, achievement strivings are instigated by the anticipation of pride in accomplishment, then conditions must be established that foster self-attributions for success. One might wonder, for example, if programmed learning could dampen pride in accomplishment because success is attributed to a "good" program, rather than to a "good" learner.

Sources of affect in achievement contexts. Certainly the question of how to motivate children in the classroom and combat underachievement cannot be separated from the question of the emotions that one experiences during schooling. Yet very little is known about affects in the classroom. The affects experienced in achievement settings are not confined to those related to self-esteem. Happiness and frustration, future hopes and fears, anger and gratitude — these are just some of the emotions that might be experienced in achievement contexts. Evidence from attributional investigations has suggested that there are (at least) three sources of affect in classroom settings (see Weiner, Russell, & Lerman, 1978, 1979): 1) the outcome; 2) the particular attribution for the outcome; and 3) the underlying causal properties of the attribution. Success and failure generate what

have been called outcome dependent affects. Affects such as happiness and pleasure given success and displeasure and frustration for failure are typically experienced regardless of the reason for the positive and negative outcomes. The perceived specific cause of the outcome is linked to more distinctive emotional reactions. For example, given failure because of lack of effort, guilt often is experienced; failure due to hindrance from others gives rise to anger; and so forth. Finally, there are affects, such as those related to self-esteem, that are associated with causal dimensions. In addition to the locus-esteem relation, affects such as hopelessness, helplessness, apathy, and resignation are reported when failure is ascribed to stable causes. These affects apparently are elicited when it is believed that the future will remain as undesirable as the past, and are linked with poor coping.

In sum, given failure in school, a pupil might progress through the following cognition-emotion scenario that directly relates to school adjustment:

> "I just received a "D" on the exam. That is a very low grade. (This generates feelings of being frustrated and upset.) I received this grade because I have little ability. (This is followed by feelings of incompetence.) There is really something lacking in me, which I probably will always lack. (This is ensued by low self-esteem and hopelessness.)"

Perceived Control

Perceived control is an

extremely important determinant of how we respond to others. When the behavior of others is perceived as subject to their own personal control, then those individuals are considered responsible for their actions; that is, they are able-to-respond. This belief about others has a variety of consequences in educational contexts. Most importantly, the allocations of rewards and punishments are to a great extent determined by perceived effort expenditure. Praise is maximized when a positive outcome is ascribed to high effort, whereas blame is augmented when a negative outcome is attributed to low effort (see, for example, Weiner & Kukla, 1970). Furthermore, an individual low in ability, high in effort, and successful is especially rewarded (consider the handicapped child doing well in school), whereas a high ability-low effort-failing student is especially punished (consider your reaction toward a bright student failing because of a lack of effort). There is a correspondence between achievement and moral evaluation — one "ought" to try hard, and perceived effort expenditure guides evaluation.

In addition to evaluation, helping behavior is in part determined by the perceived underlying reason of the need for aid. If that reason is perceived as controllable (i.e., the person in need is thought to be responsible for his or her plight), then a dominant affective reaction is anger and aid tends to be withheld. On the other hand, if the cause is perceived as uncontrollable, then a dominant affective response is pity and help tends to be given. In support of this contention, it has been

documented, for example, that if a student needs to borrow the class notes because "he went to the beach," then other students are much less likely to lend the notes than if that student is in need because of an eye problem (Weiner, 1980b). Problems in the classroom that disrupt the teacher, such as defiance or attention-getting, typically are perceived as under volitional control of the student and result in punishment. On the other hand, problems that create difficulties only for the student, such as shyness, are perceived as not controllable by the student and elicit help from the teacher (Brophy & Rohrkemper, 1981).

Achievement change programs

The concepts of causal stability, perceived controllability, and expectancy of success have guided a number of intervention programs attempting to alter achievement strivings. Researchers in the area are generally influenced by the belief that achievement strivings are inhibited by the tendency to ascribe failure to low ability. On the other hand, there is general consensus that lack of sufficient effort expenditure frequently is the most adaptive attribution for failure. Hence, achievement change programs based on attributional principles often attempt to change low ability attributions for failure to lack of effort ascriptions (although consideration of the realism of these attributions must not be totally disregarded!).

In addition to altering beliefs about the amount of effort expenditure, programs have attempted to induce participants to ascribe failure to poor strategies, or to less than optimum use of their effort (Anderson & Jennings,

1980). Like intensity of effort, work strategies (the directional component of try) are unstable and are under volitional control. Still other change programs introduce dissatisfied first-year college level students to the fact that grades are unstable, for college grades increase as one passes from lower-division to upper-division courses (Wilson & Linville, in press). All the programs share the common theme of attemping to induce unstable ascriptions for failure.

A number of investigations, with participants ranging from college students (e.g., Andrews & Debus, 1978) to retardates (e.g., Zoeller, 1979) have demonstrated the efficacy of attributional change programs. Ascription of failure to a lack of effort, poor strategies, or even to an unstable school grading policy, as opposed to lack of ability, result in greater persistence in the face of failure and better performance at the task.

Change programs and "learned helplessness." Effort not only is an unstable cause, but it also is under volitional control. Therefore, attributions to a lack of effort or to poor work strategies indicate to the recipient of this information that there is something one can do, i.e., one can have an impact on the environment and is responsible for his or her fate.

In recent years the concept of "learned helpessness" (Seligman, 1975) has been used to capture this experiential state and has shed light upon a variety of maladaptive thoughts and behaviors that occur as a consequence of a "helplessness" belief system. Learned helplessness more specifically refers to the belief that instrumental behaviors are ineffective in the attainment of personal goals. This convinction might range from

circumscribed attitudes such as "My contribution in class does not count" to more far-reaching and significant thoughts such as "There is nothing I can do to change my life." The more general perceptions of lack of control have been related to a variety of problems including depression (Abramson, Seligman, & Teasdale, 1978), loneliness (Peplau, Russell, & Heim, 1979), and achievement failure (Dweck, 1975). This belief also has been shown to be an impediment in the overcoming of problems associated with physical illness (Pennebaker, Burnam, Schaeffer, & Harper, 1977) and aging (Langer & Rodin, 1976). A number of programs altering perceptions of control have been designed (e.g., Dweck, 1975; Langer & Rodin, 1976). These programs respectively provided feedback that failure was controllable, or gave the participants tasks which involved personal responsibility. Hence, the programs are potentially useful for any population in which the ability to exert control has been reduced by, for example, institutional constraints, or for individuals in whom the ability to exert control is perceived as having been thwarted.

Summary

Low self-esteem, low expectancy of success, lack of task persistence, and underachievement all are amenable to attributional analyses provided by cognitive social psychologists. Low self-esteem is one consequence of accepting blame for failure and not taking personal credit for success (the locus dimension of causality); low expectancy of success is a consequence of ascribing failure to stable causes and success to unstable causes (the stability dimension of causality); and both self-perceptions and anticipations of the future influence task persistence and achievement. Furthermore, how the teacher reacts to these behaviors, and how one copes with failure, is in part determined by the perceived controllability of the outcome.

On Communicating Low Ability: Some Bad Things that Good Teachers Do

What might a teacher do given a child described by the failure syndrome of low self-esteem, low expectancy of success, giving up in the face of failure, and underachievement? Common sense suggests a few behaviors that teachers do engage in, such as providing frequent praise, withholding criticism,

and offering sympathy and help (see Brophy, 1981). Yet cognitive social psychologists point out that this set of reactions might be inappropriate and further exacerbate the low achievement cycle. To understand why this might be the case, we must return to attributions regarding ability.

Ability Ascriptions

One of the most important attributions that we make about ourselves and about others concerns perceived ability level and the causal role of ability in producing success or failure. Ability is a central ascription because it often is perceived as internal, stable, and uncontrollable. Hence, it assumes the same characteristics as what is meant by aptitude. Because ability is an internal cause, an attribution for failure to low ability decreases self-esteem; because ability is perceived as a stable cause, an attribution for failure to low ability implies that future success is not likely; and because ability is thought to be uncontrollable, it logically follows that there is nothing one can do to improve. These connotations are consistent with the growing literature documenting that self-perception of low ability and self-statements such as "I cannot" have severely debilitating consequences (Bandura, 1977; Meyer, 1976).

A number of antecedents of ability self-perceptions have been identified, such as past success history and social norms. In classroom contexts the information provided by others, particularly the teacher, is likely to be an important determinant of self-ascriptions for success and failure. Surely being publicly designated by the teacher as "the worst pupil in class" will lower one's estimate of his or her own ability.

Esteem-dampening attributional information is unlikely to be communicated with

such directness. A teacher will rarely (if ever) say to a pupil: "You are dumb." In a similar manner, it is quite atypical to refuse a dating request by responding: "You are not physically attractive;" or "You have a terrible personality," even when these are the true reasons for the rejection. Rather, a rejecter is more likely to reply: "I have to study tonight;" or "I already have an engagement." These reasons are external to the requester and therefore the self-esteem of the person seeking the date is not lowered (see Folkes, in press). We often are benevolent in our communications to others whom we do not wish to hurt.

However, information that is emotionally upsetting and which lowers the recipient's self-esteem may be subtly and unknowingly conveyed, in spite of the intentions of the communicator not to cause emotional or psychological harm. This appears to be particularly true when an observer perceives that the actor is low in ability. One anecdote illustrating this point concerns the Little League baseball coach who, when looking over the players on the bench, said: "Johnny, you go in now. The rules say that everyone must play." Johnny is then put in a field position where balls seldom are hit. Perhaps this is similar in some respects to being placed in the last seat in the last row, where questions rarely are addressed.

There are a number of indirect communications from teachers to pupils that unintentionally can carry low ability messages. We think that three prevalent and apparently positive actions could have negative consequences for self-esteem. They are:

1. Praise for success, and lack of criticism for failure, at an easy task.
2. Excessive help, particularly when it is not sought.
3. Expressions of pity for failure.

Recall that these are the behaviors that intuitively are extended by teachers to aid in overcoming a failure syndrome and underachievement. Conversely, actions appearing to be thoughtless or repugnant that might have positive consequences for self-esteem are:

1a. Lack of praise for success, and criticism for failure, at an easy task.

2a. Comparative neglect.

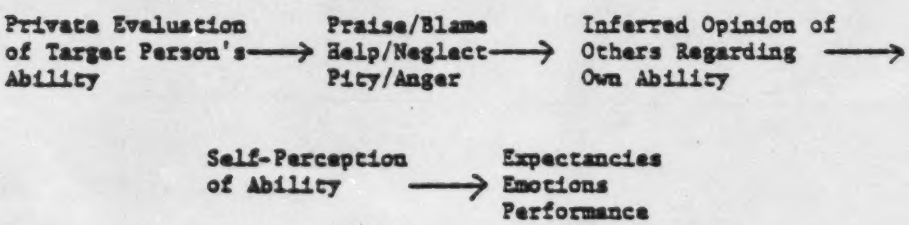
3a. Expressions of anger for failure.

The psychological (and social psychological) processes and the temporal order of events guiding these presumptions is shown in Diagram 1. It is assumed that private evaluations of a target person's ability lead to specific reactions toward that person, such as praise for success at an easy task, excessive help, and expressions of pity for failure. These reactions provide the recipient with information about how the other person is

estimating his or her ability. The inferred opinions of others then influence self-perception of ability, which is one of the factors that determine expectations for the future, affective reactions, and performance.

Diagram 1

The Attributional Process and Self-Perception of Ability


Private Evaluation of Target Person's Ability
Praise/Blame Help/Neglect Pity/Anger
Inferred Opinion of Others Regarding Own Ability
Self-Perception of Ability
Expectancies Emotions Performance

In the following sections of this paper, we examine more closely the empirical evidence suggesting that the specified praise/blame pattern, helping, and sympathy may lower self-perception of ability. But first a word of caution is necessary. We are not advocating that praise, help, and sympathy and always "bad" and invariably have negative affects. That is obviously false. What we do want to point out is that, from the perspective of psychologists interested in self-perception, these actions might have some unforeseen, unintended, and uneasy consequences.

Praise and Blame

Consider this simple example: Imagine that a teacher extensively praises a pupil for success at a task that all other students can perform. The student might readily conclude from this that the teacher does not consider him or her to be very gifted. Why do recipients of such feedback infer that their ability is perceived as low?

A number of psychological structures and processes are involved in what appears to be a simple inference. First, there is a relation between praise for success and blame for failure and the perceived causes of these outcomes. As already indicated, praise is enhanced when a positive outcome is ascribed to high effort, while blame is increasedwhen a negative outcome is attributed to low effort. Other structures pertinent to the inference that praise for success at an easy task results in a low ability inference relate to the amount of ability and effort perceived as needed to attain success. At an easy task, success is perceived to be the result of high ability or high effort expenditure (this is labeled a sufficient causal schema). On the other hand, success at a difficult task is perceived to be the result of high ability and hard work (this is labeled a necessary causal schema; see Kelley, 1972). Furthermore, within limits, ability and effort are perceived as compensatory. With decreasing ability, the amount of effort perceived as necessary for success increases up to the point where the difficulty of the task is such that success without some degree of ability is not perceived as possible (see Kukla, 1972; Kun & Weiner, 1973).

According to the reward principle, praise and blame allow one to draw conclusions concerning the extent to which an outcome is ascribed to effort expenditure. And, on the basis of the sufficient, necessary, and compensatory causal principles, further inferences can then be drawn about ability estimates. For example, praise for success at an easy task leads to the conclusion that the person distributing praise perceived the outcome as due to high effort expenditure. High effort is the ascribed cause for success at an easy task

only for individuals perceived as low in ability. Praise therefore may function as a cue that the acting person's ability is estimated as low. More generally, if ability and effort are perceived as compensatory, then the greater the praise for success (with all else equal), the less the person's perceived ability.

In a similar manner, blame for failure at a difficult task leads to the inference that the result was attributed to a lack of effort. Low effort is perceived to be the cause for failure at this task when the actor's ability is estimated as being high. It therefore follows that blame can function as a cue indicating that the evaluator perceives the actor as high in ability. More generally, the greater the blame for failure (with all else equal), the greater the person's perceived level of ability.

These ideas have been tested in a number of investigations. The research varies in that some studies take place in the laboratory, others in the classroom; some studies have teachers making judgments, others analyze the judgments of students of varying ages; and some investigations directly measure ability estimates, while others assess more indirect indexes, such as predictions of future success (see Meyer, 1978; Meyer & Plöger, 1979; Meyer et al., 1979). In spite of these variations, the general pattern of data in all the studies is quite similar.

For illustrative purposes, consider the following simulational study that readily conveys the general points proposed above. In this investigation (Meyer & Plöger, 1979), teachers received one of four versions of a short questionnaire. In the questionnaires, two students were described as having

solved an arithmetic problem that was characterized as very easy or very difficult. It was also conveyed that both students either succeeded or failed at the task. Hence, the two students were described as either succeeding at an easy task, failing at an easy task, succeeding at a difficult task, or failing a difficult task. The evaluative feedback to the two students was portrayed as different, although their performance was described as identical. Given success, the teacher's neutral reaction to one of the students was: "Yes, 32 is the correct answer." The praise reaction to the other student was: "You have done very well; I am pleased." Given failure, the teacher's neutral reaction was described as: "No, 35 is not correct." The blaming response was: "What have you done! 35 is wrong." After reading each scenario, the research participants indicated the teacher's estimates of the abilities of the two students.

The data clearly revealed that, regardless of the difficulty of the task, the student praised after success was perceived as having less ability than the student receiving neutral feedback. In the failure condition, the student receiving neutral feedback was perceived as having less ability than the student who was blamed. In sum, the results of this investigation demonstrate that praise and blame may provide information about how others perceive one's ability. Cognitive social psychologists point out that praise and blame take place in interpersonal contexts and that thoughts about the thoughts of others, and the effects of such inferences on how we feel about ourselves, cannot be ignored.

This discussion raises the more general question of: "When is praise appropriate in the classroom?" For a period of time, guided by behavioristic

ideas, it was believed by some that rewards such as praise and success feedback automatically increased the likelihood of the reinforced behavior. More recently, however, it has been documented that, under some conditions, extrinsic rewards such as praise decrease intrinsic motivation (Deci, 1975) and, as already discussed, praise might lower ability self-perceptions and achievement strivings. With the growth of cognitive psychology, the multi-faceted effects of praise have become more evident and it is now apparent that there are no simple relations between praise and a number of classroom variables, including performance (see Brophy, 1981).

Help and Neglect

Now let us turn to helping behavior. Diagram 1 indicates that helping also may influence the recipient's estimates of personal ability. The reasoning guiding this contention is based on an attributional analysis of helping behavior already presented. Recall that whether help is given or withheld depends in part on the perceived cause of another's dependency. Helping behavior is most likely to be extended when the other person's need is ascribed to causal factors beyond his or her personal control such as, for example, a lack of ability. On the other hand, if the dependency is perceived as due to factors subject to volitional control, such as lack of effort, then the person is held responsible for the need and help tends to be withheld.

These empirical relations suggest that a recipient of aid may infer

causal beliefs from helping behavior. Those receiving help may conclude that the help-giving person estimates the recipient's abilities or capabilities to be low. This, in turn, may affect the recipient's self-perception of ability.

An experimental study (Conty, 1980) again nicely illustrates the potential relation between helping behavior and self-perception of ability. For ease of communication, various features of this investigation are simplified here. In the laboratory study under consideration, female subjects were told that a research group was developing an intelligence test. The alleged test was then administered to the subject and to another female student (an experimental confederate). The test consisted of anagram-type tasks. After the allotted time had expired, the experimenter collected the answer sheets under the pretense that the tests would now be scored. The experimenter sat at a table directly in front of the participants and "scored" their tests to induce the belief that the experimenter knew both participants' abilities for solving anagram tasks.

Then the participants were given another anagram, introduced as a practice test, prior to a second period of testing. This provided the opportunity to create three experimental conditions. In one condition the experimenter gave help to the subject immediately after she began to work on the practice test. The experimenter said: "I'll give you a hint. The letter that the word begins with is A [pointing to the correct letter]." In a second experimental condition the confederate received this aid while the subject was given no help. Finally, in a third condition neither of the participants was aided.

After successfully unscrambling the word, the participants were asked to rate their subjective probabilities of success for the next series of anagram tasks. Subjective estimates of success provide a valid index for beliefs about one's own ability. The data revealed that when subjects received aid while the confederate did not, their estimates of future success were lowest. Conversely, aid to the confederate while not receiving personal help resulted in the highest estimates of future success.

In sum, unrequested help can lead the recipient to conclude that the person offering help perceives that a need exists because of a lack of ability. This information is then used to infer that one indeed does lack ability, resulting in a lowering of expectancy of future success. On the other hand, relative neglect may give rise to the belief that one is perceived as not in need of aid. This information is then used to conclude that one is high in ability, resulting in a relative increment in expectancy of future success. To again remind the readers, it should not therefore be concluded that we should not help others. That is manifestly ridiculous. Rather, it should be recognized that under some conditions helping behavior, like praise and blame, may influence what we think others think about us and this, in turn, affects how we think about ourselves.

Emotional Reactions: Pity and Anger

It has been contended that praise, blame, helping, and neglect may be cues used by pupils to infer what others (teachers) think about them and, in turn, these inferences influence what pupils think about themselves. It will now be contended that emotional reactions also can serve this cue function and it is again suggested that apparently positive actions might have negative consequences for self-esteem.

The possibility that emotional consequences have implications for self-perception of ability was suggested by the evidence demonstrating that the emotional reactions of others are in part determined by their perceptions of the reasons why an actor has failed or is in need (Weiner, 1980b, 1980c). If failure is perceived as due to insufficient effort, then a dominant response of teachers is anger, whereas failure perceived as due to a lack of ability frequently gives rise to pity and sympathy. Anger is an "ought" emotion and is elicited when negative actions are perceived to be caused by volitional factors such as lack of effort and/or negative intent. On the other hand, failure ascribed to nonvolitional and uncontrollable factors such as lack of ability give rise to more positive interpersonal affects such as pity.

If an attribution for failure (e.g., lack of effort) gives rise to a specific affect (e.g., anger), then it also should follow that, given anger as the displayed affect, the associated lack of effort ascription will be inferred. In a similar manner, given pity and sympathy as the displayed affects, the associated lack of ability ascription should be inferred.

In an investigation demonstrating this possibility (Weiner, Graham, Stern, & Lawson, in press), participants were given the following scenarios:

A student failed a test and the teacher felt angry [pity, guilty, surprised, sad]. Why did the teacher think that the student failed?

The participants then indicated on simple rating scales the degree to which various causes (low ability, lack of effort, bad luck, and poor teaching) were perceived as producing the student's failure.

The data in this investigation clearly revealed that, given anger as the expressed affect, lack of effort is the inferred cause of failure; pity is linked with low ability (and is especially dissociated from effort ascriptions); and guilt is strongly linked with attributions to poor teaching.

Given these findings, one might reason that affective displays of anger and sympathy are used by students to infer why they failed: whether they are deficient in effort or in ability. As indicated at the beginning of this section of the paper, it is unlikely that a teacher will publicly announce to students that they (the students) are unable. However, such private thoughts may nevertheless become public through the interpretation of affective displays.

The Influenced Target Populations

The arguments and evidence that have been presented are believed to have implications for all segments of our society. One might speculate, however, that sympathy and pity for failure, excessive help, reward for success at an easy task, lack of criticism for failure at an easy task, and many other apparently positive actions that negatively influence self-perception of ability are particularly expressed toward the handicapped, ethnic minorities, and females. For example, some have noted the prevalence of sympathetic reactions, and their negative consequences, toward minority group members. Kleinfeld (1975), for example, states: "Sympathetic to the academic difficulties of native [Eskimo] students ... sentimentalist teachers require very little, and little learning occurs" (p. 335). And a very

natural reaction toward the handicapped is pity and helping, both of which might stamp-in the belief that "I cannot."

A Concluding Note

Learning takes place in interpersonal contexts, with peers, the teacher, and the family as part of the social context of the learner. Self- and other-perception therefore are an inherent part of the educational process, and principles of cognitive social psychology can provide direct input for educational decision making. In this paper we merely have provided some selected illustrations of the close connection between person perception and education. We believe that only the tip of the iceberg has been uncovered in this new and growing area of study.

References

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 1978, 87, 49-74.

Andrews, G. R., & Debus, R. L. Persistence and causal perceptions of failure: Modifying cognitive attributions. Journal of Educational Psychology, 1978, 70, 154-166.

Anderson, C. A., & Jennings, D. L. When experiences of failure promote expectations of success: The impact of attributing failure to ineffective strategies. Journal of Personality, 1980, 48, 393-407.

Atkinson, J. W. An introduction to motivation. Princeton, N. J.: Van Nostrand, 1964

Bandura, A. Self efficacy: Towards a unifying theory of behavior change. Psychological Review, 1977, 84, 191-215.

Beckman, L. Effects of students' performance on teachers' and observers' attributions of causality. Journal of Educational Psychology, 1970, 61, 76-82.

Brophy, J. Teacher praise: A functional analysis. Review of Educational Research, 1981, 51, 5-32.

Brophy, J., & Rohrkemper, M. M. The influence of problem ownership on teachers' perceptions of and strategies for coping with problem students. Journal of Educational Psychology, 1981, 73, 295-311.

Conty, M. Kognitive und affektive Konsequenzen von Hilfeleistungen für den Empfänger von Hilfe. Unpublished diploma thesis, University of Bielefeld, West Germany, 1980.

Crandall, V. C. Sex differences in expectancy of intellectual and academic reinforcement. In C. P. Smith (Ed.), Achievement-related motives in children. New York: Russell Sage, 1969.

Deci, E. L. Intrinsic motivation. New York: Plenum, 1975.

Dweck, C. S. The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 1975, 31, 674-685.

Deaux, K., & Farris, E. Attributing causes for one's own performance: The effects of sex, norms, and outcome. Journal of Research in Personality, 1977, 11, 59-72.

Fiske, S. T. Attention and weight in person perception: The impact of negative and extreme behavior. Journal of Personality and Social Psychology, 1980, 38, 489-906.

Folkes, V. S. Causal communications in the early stages of affiliative relationships. Journal of Experimental Social Psychology (in press).

Hamilton, D. L., & Rose, T. R. Illusory correlation and the maintenance of stereotypic beliefs. Journal of Personality and Social Psychology, 1980, 39, 832-845.

Heider, F. The psychology of interpersonal relations. New York: Wiley, 1958.

Jones, E. E., & Davis, K. E. From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 2. New York: Academic Press, 1965.

Kelley, H. H. Attribution theory in social psychology. In D. Levine (Ed.), Nebraska symposium on motivation, Vol. 15. Lincoln: University of Nebraska Press, 1967.

Kelley, H. H. Causal schemata and the attribution process. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), Attribution: Perceiving the causes of behavior. Morristown, N. J.: General Learning Press, 1972.

Kelley, H. H., & Michela, J. Attribution theory and research. Annual Review of Psychology, 1980, 31, 457-501.

Kleinfeld, J. Effective teachers of Eskimo and Indian students. School Review, 1975, 83, 301-344.

Kukla, A. Foundations of an attributional theory of performance. Psychological Review, 1972, 79, 454-470.

Kun, A., & Weiner, B. Necessary versus sufficient causal schemata for success and failure. Journal of Research in Personality, 1973, 7, 197-207.

Langer, E. J., & Rodin, J. The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. Journal of Personality and Social Psychology, 1976, 34, 191-198.

Langer, E. J., Taylor, S. E., Fiske, S. T., & Chanowitz, B. Stigma, staring and discomfort: A novel stimulus hypothesis. Journal of Experimental Social Psychology, 1976, 12, 451-463.

McArthur, L. Z. What grabs you? The role of attention in impression formation and causal attribution. In E. T. Higgins, C. P. Hermann, & M. P. Zanna (Eds.), Social cognition: The Ontario symposium, Vol. 1. Hillsdale, N. J.: Erlbaum Associates, 1979.

McGuire, W. J., & Padawer-Singer, A. Trait salience in the spontaneous self-concept. Journal of Personality and Social Psychology, 1973, 28, 108-115.

Meyer, W. -U. Einfluss von Sanktionen auf Begabungsperzeptionen. In D. Görlitz, W.-U. Meyer, & B. Weiner (Eds.), Bielefelder Symposium über Attribution. Stuttgart-Klett-Cotta, 1978.

Meyer, W.-U. Leistungsorientiertes Verhalten als Funktion von wahrgenommener eigener Begabung und wahrgenommener Aufgabenschwierigkeit. In H.-D. Schmalt & W.-U. Meyer (Eds.), Leistungsmotivation und Verhalten. Stuttgart: Klett, 1976.

Meyer, W.-U., Bachmann, M. Biermann, U., Hempelmann, M., Plöger, F.-O., & Spiller, H. The informational value of evaluative behavior: Influences of praise and blame on perceptions of ability. Journal of Educational Psychology, 1979, 71, 259-268.

Meyer, W.-U., & Plöger, F.-O. Scheinbar paradoxe Wirkungen von Lob und Tadel auf die wahrgenommene eigene Begabung. In S.-H. Filipp (Ed.), Selbstkonzept-Forschung: Probleme, Befunde, Perspektiven. Stuttgart: Klett-Cotta, 1979.

Parsons, J. E. Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), Assessing achievement. San Fransisco: W. H. Freeman, 1981.

Pedro, J. D., Wellesat, P., Fennema, E., & Becker, A. D. Election of high school mathematics by females and males: Attributions and attitudes. American Educational Research Journal, 1981, 18, 207-218.

Pennebaker, J. W., Burnam, M. A., Schaeffer, M. A., & Harper, D. C. Lack of control as a determinant of perceived physical symptoms. Journal of Personality and Social Psychology, 1977, 35, 167-174.

Peplau, L. A., Russell, D., & Heim, M. An attributional analysis of loneliness. In I. H. Frieze, D. Bar-Tal, & J. S. Carroll (Eds.), Attribution theory: Applications to social problems. San Fransisco: Jossey Bass, 1979.

Ross, L. The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 10. New York: Academic Press, 1977.

Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80 (1, Whole No. 609).

Seligman, M. E. P. Helplessness. San Fransisco: Freeman, 1975.

Snyder, M., & Swann, W. B. Behavioral confirmation in social interaction: From social perception to social reality. Journal of Experimental Social Psychology, 1978, 14, 148-162.

Taylor, S. E., & Fiske, S. T. Point of view and perceptions of causality. Journal of Personality and Social Psychology, 1975, 32, 439-445.

Taylor, S. E., & Fiske, S. T. Salience, attention, and attribution: Top of the head phenomena. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 11. New York: Academic Press, 1978.

Taylor, S. E., Fiske, S. T., Close, M. M., Anderson, C. E., & Ruderman, A. J. Solo status as a psychological variable. Unpublished manuscript, University of California, Los Angeles, 1980.

Taylor, S. E., Fiske, S. T., Etcoff, N., & Ruderman, A. The categorical and contextual bases of person memory and stereotyping. Journal of Personality and Social Psychology, 1978, 36, 778-793.

Tversky, A., & Kahneman, D. Judgment under uncertainty: Heuristics and biases. Science, 1974, 185, 1124-1131.

Valle, V. A., & Frieze, I. H. Stability of causal attributions as a mediator in changing expectations for success. Journal of Personality and Social Psychology, 1976, 33, 579-587.

Weary, B. G. Self-serving biases in the attribution process: A reexamination of the fact or fiction question. Journal of Personality and Social Psychology, 1978, 36, 56-71.

Weiner, B. A theory of motivation for some classroom experiences. Journal of Educational Psychology, 1979, 71, 3-25.

Weiner, B. Human motivation. New York: Holt, Rinehart & Winston, 1980 (a).

Weiner, B. "May I borrow your class notes?": An attributional analysis of help-giving in an achievement-related context. Journal of Educational Psychology, 1980, 27, 676-681 (b).

Weiner, B. A cognitive (attributional) - emotion - action model of motivated behavior: An analysis of judgments of help-giving. Journal of Personality and Social Psychology, 1980, 39, 186-200 (c).

Weiner, B., Graham, S., Stern, P., & Lawson, M. E. Using affective cues to infer causal thoughts. Developmental Psychology (in press).

Weiner, B., & Kukla, A. An attributional analysis of achievement motivation. Journal of Personality and Social Psychology, 1970, 15, 1-20.

Weiner, B., Nierenberg, R., & Goldstein, M. Social learning (locus of control) versus attributional (causal stability) interpretations of expectancy of success. Journal of Personality, 1976, 44, 52-68.

Weiner, B., Russell, D., & Lerman, D. Affective consequences of causal ascriptions. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research, Vol. 2. Hillsdale, N. J.: Erlbaum Associates, 1978.

Weiner, B., Russell, D., & Lerman, D. The cognition-emotion process in achievement-related contexts. Journal of Personality and Social Psychology, 1979, 37, 1211-1220.

Wilson, T. D., & Linville, P. W. Improving academic performance of college freshman: Attribution therapy revisited. Journal of Personality and Social Psychology (in press).

Wong, P. T. P., & Weiner, B. When people ask "why" questions and the heuristics of attributional search. Journal of Personality and Social Psychology, 1981, 40, 650-663.

Zoeller, C. J. An attributional training program with mentally retarded adults in a workshop setting. Unpublished doctoral dissertation, University of California, Los Angeles, 1979.

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